

Prep Technologies Curriculum and assessment plan

Example

Level description	Context and cohort considerations
<p>Learning in Technologies builds on the Early Years Learning Framework, and each student's prior learning and experiences. By the end of Foundation students should have had the opportunity to create at least one type of designed solution for one of the technologies contexts or one identified by the school. They should have had the opportunity to experience computational thinking by experimenting with different ways of representing an idea or action with a symbol, object or picture that is understood by others, such as a sun indicating fine conditions in a weather forecast.</p> <p>Students should have opportunities to experience designing and producing a product, service or environment. They explore technologies – materials and equipment – through play experiences in a context and generate ideas to design a solution for a purpose. Students develop an awareness of how people design products, services and environments. They evaluate design ideas and choose the most suitable idea. Students use a range of methods to communicate design ideas, including drawings or models, for example changing perspectives from front view to plan view. They explore working with materials such as cardboard, fabric and other common household items and using equipment such as scissors, glues, trowels or kitchen utensils. Students learn techniques to safely make a designed solution.</p> <p>Through Technologies and Mathematics (Statistics), students have opportunities to explore different ways that data can be acquired and recorded, for example using a tablet to take photographs of plants in the school garden. Students have opportunities to develop their confidence with using digital systems by creating content such as simple messages. They become familiar with the difference between data that is owned by them, such as a photo of themselves, and data that is publicly available, such as a photo of their school. Through guided play experiences and tasks, students develop systems thinking by exploring how digital systems, such as tablets, smartphones and laptops can be used for different purposes, at school and at home.</p> <p>In Technologies, students should have frequent opportunities for authentic learning by making key connections with other learning areas, as there are rich connections to other learning areas, including Science and Humanities and Social Sciences.</p>	<p>Technologies is timetabled for one lesson per week, across two term-long units. Students engage in the learning area with their classroom teacher.</p> <p>A class set of tablet devices is available to complete digital tasks. The Semester 2 unit of work is designed to complement a unit from the Science learning area.</p>

Unit 1 — Celebrating symbols	Unit 2 — Technology explorers
<p>Timing: Term 2 Duration: 10 weeks</p> <p>In this unit, students use data and digital technologies to explore how information can be visually represented and communicated. They learn to use objects, pictures and symbols to convey meaning, such as using a cloud to represent a rainy day, and a sun for a sunny day, or other simple icons to organise and display data. They use digital tools to create visual representations of different emotions, developing an understanding of how symbols and images can communicate information about emotions effectively, e.g. a smiling face for happy, a frowning face for sad.</p> <p>Students focus on using data to understand how symbols give us information, e.g. a stop sign uses a red octagon shape to represent the need to stop. Students create symbols using digital tools for a significant event to represent both personal and school celebrations, such as digitally drawing a cake to represent a birthday or a camera for photo day. With teacher support, they use these skills to create a collaborative digital artifact, such as a weekly class timetable, showcasing their understanding of data organisation.</p> <p>Students bring in a photo of themselves celebrating an event from home, which, along with teacher-provided photos, they sort into 'personal' and 'public'. Through this activity, students learn to identify what makes data personal — belonging to an individual or family — and what makes data public — shared or available for everyone to see. They discuss other examples of personal and public data, such as family videos, letters, or personal drawings (personal) versus images of community festivals, historical buildings, or weather reports (public). Opportunities exist to connect with the Mathematics curriculum.</p>	<p>Timing: Term 4, Duration: 10 weeks</p> <p>In this unit, students explore how people purposefully create everyday items, services and environments around them to meet specific needs. This helps students connect design to their own lives, recognising that objects are intentionally created with certain features to fulfill particular needs. Through classroom discussion and guided exploration, students identify familiar items in their environment, examining why they look the way they do and how their design helps them function. For instance, a spoon has a curved shape to help scoop and eat food, and a magnifying glass has a large, convex lens and a handle to help magnify small objects to make them easier to see.</p> <p>Students are supported to use digital technologies (e.g. digital cameras or tablets) to complement their learning. They practise using these tools to examine the fine details of natural items, such as leaves and seeds. Through discussion, they explore how these digital tools help them observe more closely and deepen their understanding of the external features of plants and animals.</p> <p>Building on this exploration, students develop a simple, purposeful designed solution to help them investigate the natural world further. To extend their learning, they design and create their own magnifying glass using safe, age-appropriate materials, such as modelling clay or plasticine. Through this hands-on activity, they learn about the key parts of a magnifying glass, i.e. convex lens, frame, handle. They sketch their designs, assemble their magnifying glasses, and test them by observing details in natural objects.</p> <p>Designing and testing their magnifying glasses strengthens links to the Science curriculum by observing and exploring material.</p>

	Unit 1	Unit 2
	Assessment — Celebrations and symbols investigation Timing Term 2 Week 8	Assessment — Designing tools for discovery project Timing Term 4 Week 9
Assessment	<p>Part A: Identifying personal and public data</p> <p>Students use a photo of themselves from home and teacher-provided photos (e.g. school events like assemblies or public celebrations) to sort images into two categories: personal (owned by them) and shared (belonging to others).</p> <p>Part B: Representing data with symbols</p> <p>Students choose an object related to a personal activity and use a digital tool to create a symbol representing it. With teacher guidance, they add their symbol to the class weekly timetable.</p> <p>Technique: Investigation</p> <p>Mode: Multimodal (spoken and visual)</p> <p>Conditions:</p> <ul style="list-style-type: none"> assessments may be administered over several lessons or broken into components to reflect the needs of the learners prompts may be provided to support students to complete the assessment questions or instructions can be read to students in whole class, group or individual situations. 	<p>Students create their own design for a magnifying glass by drawing or modelling their ideas. They communicate their designs by explaining or labelling their drawings or models. Through discussions with peers and teachers, students choose the best features for their magnifying glass. Using a teacher-supplied convex lens, they assemble their magnifying glass and test it by examining natural objects up close. Students share their drawing or model with the teacher and classmates.</p> <p>Technique: Project</p> <p>Mode: Multimodal (spoken and practical)</p> <p>Conditions:</p> <ul style="list-style-type: none"> assessments may be administered over several lessons or broken into components to reflect the needs of the learners prompts may be provided to support students to complete the assessment questions or instructions can be read to students in whole class, group or individual situations.
Learning area achievement standard	<p>By the end of the Prep year students identify familiar products, services and environments and develop familiarity with digital systems, using them for a purpose. They create, communicate and choose design ideas. Students follow steps and use materials and equipment to safely make a designed solution for a school-selected context. They show how to represent data using objects, pictures and symbols and identify examples of data that is owned by them.</p>	<p>By the end of the Prep year students identify familiar products, services and environments and develop familiarity with digital systems, using them for a purpose. They create, communicate and choose design ideas. Students follow steps and use materials and equipment to safely make a designed solution for a school-selected context. They show how to represent data using objects, pictures and symbols and identify examples of data that is owned by them.</p>
Moderation	<p>Consensus: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>	<p>Calibration: Refer to QCAA moderation advice on the QCAA website under the Assessment tab in the learning area.</p>

Content descriptions	Units		Content descriptions	Units	
Knowledge and understanding	1	2	Processes and production skills	1	2
Technologies and society explore how familiar products, services and environments are designed by people AC9TDEFK01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Designing and making generate, communicate and evaluate design ideas, and use materials, equipment and steps to safely make a solution for a purpose AC9TDEFP01	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital systems recognise and explore digital systems (hardware and software) for a purpose AC9TDIFK01	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Privacy and security identify some data that is personal and owned by them AC9TDIFP01	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Data representation represent data as objects, pictures and symbols AC9TDIFK02	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

General capabilities	Units	
	1	2
Critical and creative thinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital literacy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethical understanding	<input type="checkbox"/>	<input type="checkbox"/>
Intercultural understanding	<input type="checkbox"/>	<input type="checkbox"/>
Literacy	<input type="checkbox"/>	<input type="checkbox"/>
Numeracy	<input type="checkbox"/>	<input type="checkbox"/>
Personal and social capability	<input type="checkbox"/>	<input type="checkbox"/>

Cross-curriculum priorities	Units	
	1	2
Aboriginal and Torres Strait Islander histories and cultures	<input type="checkbox"/>	<input type="checkbox"/>
Asia and Australia's engagement with Asia	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability	<input type="checkbox"/>	<input type="checkbox"/>

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